# Commonwealth of Kentucky Energy and Environment Cabinet Department for Environmental Protection Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

#### AIR QUALITY PERMIT Issued under 401 KAR 52:040

Permittee Name: Vulcan Construction Materials, LP

Mailing Address: 1200 Urban Center Drive, P.O. Box 385016

Birmingham, Alabama 35238-5016

Source Name: Grand Rivers Quarry-

**Vulcan Construction Materials, LP** 

Mailing Address: Same as above

Source Location: 947 US Highway 62

Grand Rivers, Kentucky 42045

**Permit ID: S-06-008 (Revision 3)** 

Agency Interest #: 2744

Activity ID: APE20080003

**Review Type:** Minor Source, Operating

Source ID: 21-139-00004

Regional Office: Paducah Regional Office

130 Eagle Nest Drive Paducah, KY 42003-9435

(270) 898-8468

**County:** Livingston

**Application** 

Complete Date: August 19, 2008
Issuance Date: May 31, 2006
Revision Date: August 22, 2008
Expiration Date: May 31, 2016

John S. Lyons, Director Division for Air Quality **Permit Number:** <u>S-06-008 (Revision 3)</u> **Page:** <u>1</u> **of** <u>26</u>

#### **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application, which was determined to be complete on August 19, 2008, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify an affected facility without first having submitted a complete application and receiving a permit for the planned activity from the Division, except as provided in this permit or in Regulation 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agency.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

### **Tertiary (Finishing) Plant:**

01 (036) Bin #16 (Truck Loadout) (BIN-16)

[From Screen #4 (SCR-4) to Truck Loadout] (Maximum Process Rate – 1500 tons/hour)

Constructed: July 1, 1969

Control: Dust Suppression Sprays

(-) Truck Loadout

[From Bin #16 (BIN-16)]

(Maximum Process Rate – 1500 tons/hour)

Control: Dust Suppression Sprays

(037) Bin #17 (Feeder Bin) (BIN-17)

[From Screen #4 (SCR-4) to Crusher #4 (CRS-4) via Feeder #10]

(Maximum Process Rate – 1000 tons/hour)

Constructed: July 1, 1969

Control: Dust Suppression Sprays

(042) Conveyor and Transfer Points #18 (CNV-18)

[From Conveyors #17 (CNV-17) and #20 (CNV-20) to Screens #5

(SCR-5) and #6 (SCR-6)]

(Maximum Process Rate – 1250 tons/hour)

Constructed: July 1, 1969

Control: Dust Suppression Sprays

(054) Conveyor and Transfer Points #20 (CNV-20)

[From Cone Crusher #5 (CRS-5) to Conveyors #18 (CNV-18) and #21

(CNV-21)

(Maximum Process Rate – 400 tons/hour)

Constructed: July 1, 1969

Control: Dust Suppression Sprays

#### **Pugmill Operation:**

03 (080) Stockpile (Open) (Surge Pile)

(Maximum Process Rate – 900 tons/hour)

Control: Dust Suppression Sprays

(081) Conveyor and Transfer Points (36") (3506)

[From Underground Feeders to Screw Mixer (3500)]

(Maximum Process Rate – 900 tons/hour)

Constructed: July 1, 1969

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Pugmill Operation: (Continued)**

03 (082) Screw Mixer (Eagle Double-Screw – 36" x 8' 6") (3500)

(Wet Process – No Emissions)

[From Conveyor (3506) to Storage Bin (3505)] (Maximum Process Rate – 900 tons/hour)

Constructed: July 1, 1969 Control: Wet Process

(083) Storage Bin (3505)

(Wet Process – No Emissions)

[From Screw Mixer (3500) to Truck Loadout (3501)]

(Maximum Process Rate – 900 tons/hour)

Constructed: July 1, 1969 Control: Wet Process

(084) Truck Loadout (3501)

(Wet Process – No Emissions) [From Storage Bin (3505)]

(Maximum Process Rate – 900 tons/hour)

Control: Wet Process

#### **Rock Rinsing Plant:**

04 (085) Receiving Hopper (Truck Dump) (8065)

[To Conveyor (8053) via Feeder Belt (8072)] (Maximum Process Rate – 750 tons/hour)

Constructed: July 1, 1969

Control: Dust Suppression Sprays

(086) Receiving Hopper (Truck Dump) (8080)

[To Conveyor (8053) via Feeder Belt (8079)] (Maximum Process Rate – 750 tons/hour)

Constructed: July 1, 1969

Control: Dust Suppression Sprays

(089) Conveyor and Transfer Points (48") (8053)

[From Belt Feeders (8072) and (8079) under Receiving Hoppers (8065)

and (8080) to Wash Screen (8081)]

(Maximum Process Rate – 1500 tons/hour)

Constructed: July 1, 1969

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Rock Rinsing Plant: (Continued)**

04 (090) Wash Screen (8' x 20' Triple-Deck) (8081)

(Wet Process – No Emissions)

[From Conveyor (8053) to Conveyors (8054) and (8076)]

(Maximum Process Rate – 1500 tons/hour)

Constructed: July 1, 1969 Control: Wet Process

(091) Conveyor and Transfer Points (48" Stacker) (8054)

(Wet Process – No Emissions)

[From Wash Screen (8081) to Barge Loadout] (Maximum Process Rate – 1500 tons/hour)

Constructed: July 1, 1969 Control: Wet Process

(-) Barge Loadout

(Wet Process – No Emissions)

[From Conveyor (8054)]

(Maximum Process Rate – 1500 tons/hour)

Control: Wet Process

(092) Conveyor and Transfer Points (Sand Screw) (8076)

(Wet Process – No Emissions)

[From Wash Screen (8081) to Stockpile] (Maximum Process Rate – 1500 tons/hour)

Constructed: July 1, 1969 Control: Wet Process

(093) Stockpile (Open) (Wash Sand)

[From Conveyor (8076) to Truck Loadout] (Maximum Process Rate – 1500 tons/hour)

Control: Dust Suppression Sprays

(094) Truck Loadout

[From Stockpile (Wash Sand)]

(Maximum Process Rate – 1500 tons/hour)

Control: Dust Suppression Sprays

(-) Conveyor and Transfer Points (30" x 187') (Wet Process – No Emissions)

[From Wash Screen (8081) to Oversize Stockpile (-)]

(Maximum Process Rate – 250 tons/hour)

Constructed: June 1, 2008 Control: Wet Process **Permit Number:** <u>S-06-008 (Revision 3)</u> **Page:** <u>5</u> **of** <u>26</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Rock Rinsing Plant: (Continued)**

04 (-) Stockpile (Open) (Oversize)

[From Conveyor (-) to Truck Loadout (-)] (Maximum Process Rate – 250 tons/hour)

Control: Wet Suppression

(-) Truck Loadout

[From Oversize Stockpile (-)]

(Maximum Process Rate – 250 tons/hour)

Control: Wet Suppression

#### **Haul Road and Yard Area:**

07 (-) Paved Haul Road and Yard Area (0.25 mile)

(Maximum Process Rate – 2000 tons/hour)

Control: Wet Suppression

(-) Unpaved Haul Road and Yard Area (1.8 mile)

(Maximum Process Rate – 2000 tons/hour)

Control: Wet Suppression

#### **Primary Plant:**

08 (001) Primary Receiving Hopper #1 (Truck Dump) (H-1)

[To Primary Grizzly Feeder #1 (FDR-1)] (Maximum Process Rate – 2000 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(004) Primary Receiving Hopper #2 (Truck Dump) (H-2)

[To Primary Grizzly Feeder #2 (FDR-2)] (Maximum Process Rate – 2000 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(009) Conveyor and Transfer Points #3 (CNV-3)

[From Feeders (FDR-1) and (FDR-2) to Rip-Rap Stockpile (SP-1)]

(Maximum Process Rate – 800 tons/hour)

Constructed: 2006

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Primary Plant: (Continued)** 

08 (011) Stockpile (Open) (Rip Rap) (SP-1)

[From Conveyor (CNV-3)]

(Maximum Process Rate – 800 tons/hour) Control: Dust Suppression Sprays

(-) Truck Loadout

[From Stockpile (SP-1)]

(Maximum Process Rate – 800 tons/hour)

Control: Dust Suppression Sprays

(013) Conveyor and Transfer Points #5 (CNV-5)

[From Conveyors #1 (CNV-1), and #2 (CNV-2) to Stockpile (SP-2)]

(Maximum Process Rate – 3600 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(014) Stockpile (Open) (Primary Surge Pile) (SP-2)

[From Conveyor #5 (CNV-5)]

(Maximum Process Rate – 3600 tons/hour)

Control: Dust Suppression Sprays

#### **Secondary Plant:**

10 (024) Conveyor and Transfer Points #10 (CNV-10)

[From Conveyor #9 (CNV-9) to Stockpile (SP-3)]

(Maximum Process Rate – 2800 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(025) Stockpile (Open) (Secondary Surge Pile) (SP-3)

[From Conveyor #10 (CNV-10)]

(Maximum Process Rate – 2800 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

[From Stockpile (SP-3)]

(Maximum Process Rate – 2800 tons/hour)

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Secondary Plant: (Continued)**

10 (026) Conveyor and Transfer Points #11 (CNV-11)

[From Screen #3 (SCR-3) to Stockpile (SP-4)] (Maximum Process Rate – 400 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(027) Stockpile (Open) (BN3 & Ballast Stockpile) (SP-4)

[From Conveyor #11 (CNV-11)]

(Maximum Process Rate – 400 tons/hour)
Control: Dust Suppression Sprays

(-) Truck Loadout

[From Stockpile (SP-4)]

(Maximum Process Rate – 400 tons/hour)

Control: Dust Suppression Sprays

(029) Stockpile (Open) (90 lb Rip-Rap Stockpile) (SP-5)

[From Screen #2 (SCR-2)]

(Maximum Process Rate – 750 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

[From Stockpile (SP-5)]

(Maximum Process Rate – 750 tons/hour)

Control: Dust Suppression Sprays

(031) Conveyor and Transfer Points #14 (CNV-14)

[From Conveyor #13 (CNV-13) to Stockpile (SP-6)]

(Maximum Process Rate – 800 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(032) Stockpile (Open) (Crusher Run Stockpile) (SP-6)

[From Conveyor #14 (CNV-14)]

(Maximum Process Rate – 800 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

[From Stockpile (SP-6)]

(Maximum Process Rate – 800 tons/hour)

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Secondary Plant: (Continued)** 

10 (033) Stockpile (Open) (49 lb Rip-Rap Stockpile) (SP-7)

[From Screen #2 (SCR-2)]

(Maximum Process Rate – 600 tons/hour)
Control: Dust Suppression Sprays

(-) Truck Loadout

[From Stockpile (SP-7)]

(Maximum Process Rate – 600 tons/hour)
Control: Dust Suppression Sprays

#### **Tertiary Plant:**

12 (-) Truck Loadout

(From Storage Bin #10)

(Maximum Process Rate – 625 tons/hour)
Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bins #11 and #12)

(Maximum Process Rate – 625 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bin #18)

 $(Maximum\ Process\ Rate-350\ tons/hour)$ 

Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bins #13 and #14)

(Maximum Process Rate – 625 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bins #6 and #7)

(Maximum Process Rate – 850 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bin #15)

(Maximum Process Rate – 850 tons/hour)

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Tertiary Plant:** (Continued)

12 (-) Truck Loadout

(From Storage Bins #8 and #9)

(Maximum Process Rate – 850 tons/hour)
Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bin #5)

(Maximum Process Rate – 850 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bins #2 and #3)

(Maximum Process Rate – 400 tons/hour)

Control: Dust Suppression Sprays

(-) Truck Loadout

(From Storage Bin #1)

(Maximum Process Rate – 400 tons/hour)

Control: Dust Suppression Sprays

#### **APPLICABLE REGULATIONS:**

State Regulation 401 KAR 63:010, Fugitive emissions, applies to each of the affected facilities listed above.

#### 1. **Operating Limitations:**

N/A

#### 2. Emission Limitations:

- a. The materials processed at each affected facility listed above shall be controlled with wet suppression, enclosures, and/or dust collection equipment so as to comply with the requirements specified in Regulation 401 KAR 63:010, Fugitive emissions, Section 3. Standards for fugitive emissions.
- b. Pursuant to Regulation 401 KAR 63:010, Section 3 (1), no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 2. <u>Emission Limitations</u>: (Continued)

- 1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
- 2) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
- 3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
- 4) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
- 5) The maintenance of paved roadways in a clean condition;
- 6) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- c. Pursuant to Regulation 401 KAR 63:010, Section 3 (2), no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.
- d. Pursuant to Regulation 401 KAR 63:010, Section 3 (3), when dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the Secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or air-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.
- e. Pursuant to Regulation 401 KAR 63:010, Section 4, Additional Requirements, in addition to the requirements of Section 3 of this regulation, the following shall apply:
  - 1) Pursuant to Regulation 401 KAR 63:010, Section 4 (1), open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered at all times when in motion.
  - 2) Pursuant to Regulation 401 KAR 63:010, Section 4 (4), no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

#### **Compliance Demonstration Method:**

See Section C, General Condition 6.a.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 3. Testing Requirements:

N/A

#### 4. **Monitoring Requirements:**

See Section C, General Condition 6.a.

### 5. Recordkeeping Requirements:

See Section C, General Conditions 2.a., 2.b., and 6.a.

### 6. Reporting Requirements:

See Section C, General Conditions 3.a., 3.b., 3.c., and 6.b.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### **Tertiary (Finishing) Plant:**

02 (034) Conveyor and Transfer Points #15 (CNV-15)

[From Stockpile via Underground Feeders #3, #4, and #5 to Screen

(SCR-4)]

(Maximum Process Rate – 2100 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(039) Tertiary Crusher (Symons – 7' SH Cone) (CRS-4)

(Maximum Rated Capacity – 700 tons/hour)

[From Screen (SCR-4) to Conveyor (16)]

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(044) Storage Bin #10 (Truck Loadout) (BIN-10)

[From Screens (SCR-5) and (SCR-6) to Truck Loadout, Crusher

(CRS-5), and Conveyor (CNV-19)]

(Maximum Process Rate – 625 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(045) Storage Bin #11 & 12 (Split Bin) (Truck Loadout) (BIN-11/12)

[From Screen (SCR-5) to Truck Loadout; also, Bin #11 to Conveyor

(CNV-19) and Bin #12 to Conveyor (CNV-25) via Feeder #13]

(Maximum Process Rate – 625 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(051) Conveyor and Transfer Points #19 (CNV-19)

[From Storage Bins (BIN-10) and (BIN-11) to Conveyor (CNV-26)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(047) Storage Bin #18 (Truck Loadout) (BIN-18)

[From Screens (SCR-5) and (SCR-6) to Truck Loadout and Crusher

(CRS-5) via Feeder #11]

(Maximum Process Rate – 350 tons/hour)

Constructed: April 24, 1997

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Tertiary (Finishing) Plant: (Continued)**

02 (053) Tertiary Crusher #5 (HP-500) (CRS-5)

(Maximum Rated Capacity – 400 tons/hour)

[From Storage Bin (BIN-18) via Feeder #11 to Conveyor (CNV-20)]

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(049) Storage Bin #13 & #14 (Split Bin) (Truck Loadout) (BIN-13/14)

[From Screen (SCR-6) to Truck Loadout; also, Bin #14 to Conveyor

(CNV-25) via Feeder #14]

(Maximum Process Rate – 625 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(072) Conveyor and Transfer Points #25 (CNV-25)

[From Storage Bins (BIN-12) via Feeder #13 and (BIN-14) via Feeder

#14 to Conveyor (CNV-26)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(058) Storage Bin #6 & #7 (Split Bin) (Truck Loadout) (BIN-6/7)

[From Screen (SCR-7) to Truck Loadout; also, Bin #7 to Conveyor

(CNV-27) via Feeder #15]

(Maximum Process Rate – 850 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(060) Storage Bin #15 (Truck Loadout) (BIN-15)

[From Screen (SCR-7) to Truck Loadout]

(Maximum Process Rate – 850 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(061) Storage Bin #4 (Feeder Bin) (BIN-4)

[From Screens (SCR-7) and (SCR-8) to Truck Loadout and Crusher

(CRS-6) via Feeder #12]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Tertiary (Finishing) Plant: (Continued)**

02 (063) Tertiary Crusher #6 (1560 Omni Cone) (CRS-6)

(Maximum Rated Capacity – 400 tons/hour)

[From Storage Bin (BIN-4) via Feeder #12 to Conveyor (CNV-23)]

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(065) Storage Bin #8 & #9 (Split Bin) (Truck Loadout) (BIN-8/9)

[From Screen (SCR-8) to Truck Loadout; also, Bin #8 to Conveyor

(CNV-26) and Bin #9 to Conveyor (CNV-27) via Feeder #16]

(Maximum Process Rate – 850 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(067) Storage Bin #5 (Truck Loadout) (BIN-5)

[From Screen (SCR-7) to Truck Loadout, Conveyor (CNV-26) and Belt

Feeder (BFD-1)]

(Maximum Process Rate – 850 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(068) Conveyor and Transfer Points (Belt Feeder #1) (BFD-1)

[From Storage Bin (BIN-5) to Crusher (CRS-7)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(069) Tertiary Crusher #7 (1560 Omni Cone) (CRS-7)

(Maximum Rated Capacity – 400 tons/hour)

[From Belt Feeder (BFD-1) to Conveyor (CNV-23)]

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(070) Conveyor and Transfer Points #23 (CNV-23)

[From Crushers (CRS-6) and (CRS-7) to Conveyor (CNV-24)]

(Maximum Process Rate – 800 tons/hour)

Constructed: April 24, 1997

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Tertiary (Finishing) Plant: (Continued)**

02 (073) Conveyor and Transfer Points #26 (Reversing) (CNV-26)

[From Conveyors (CNV-19) and (CNV-25) and Storage Bins (BIN-5) and

(BIN-8) to Conveyor (CNV-24)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(071) Conveyor and Transfer Points #24 (CNV-24)

[From Conveyors (CNV-23) and (CNV-26) to Conveyor (CNV-21)]

(Maximum Process Rate – 800 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(074) Conveyor and Transfer Points #27 (CNV-27)

[From Conveyor (CNV-26) and Storage Bins (BIN-7) via Feeder #15 and

(BIN-9) via Feeder #16 to Conveyor (CNV-28)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(075) Conveyor and Transfer Points #28 (CNV-28)

[From Conveyors (CNV-27) to Conveyor (CNV-29)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(076) Conveyor and Transfer Points #29 (CNV-29)

[From Conveyors (CNV-28) to Screen (SCR-9)]

(Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(077) Screen #9 (6' x 18' Double-Deck) (SCR-9)

(Maximum Rated Capacity – 400 tons/hour)

[From Conveyor (CNV-29) to Storage Bins (BIN-1) and (BIN 2/3)]

Constructed: April 24, 1997

Control: Dust Suppression Sprays

(078) Storage Bin #2 & #3 (Split Bin) (Truck Loadout) (BIN-2/3)

[From Screen (SCR-9) to Truck Loadout] (Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

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### SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Tertiary (Finishing) Plant: (Continued)** 

02 (079)Storage Bin #1 (Truck Loadout) (BIN-1)

> [From Screen (SCR-9) to Truck Loadout] (Maximum Process Rate – 400 tons/hour)

Constructed: April 24, 1997

Control: **Dust Suppression Sprays** 

#### **Primary Plant:**

09 (002)Conveyor and Transfer Points (60" x 30' Grizzly) (FDR-1)

[From Receiving Hopper (H-1) to Crusher (CRS-1) and Conveyors

(CNV-02) and CNV-03)]

(Maximum Process Rate – 2000 tons/hour)

Constructed: 2006

**Dust Suppression Sprays** Control:

(003)Primary Crusher #1 (Jaw - Nordberg C160) (CRS-1)

> (Maximum Rated Capacity – 2000 tons/hour) [From Feeder (FDR-1) to Conveyor (CNV-02)]

Constructed: 2006

**Dust Suppression Sprays** Control:

(005)Conveyor and Transfer Points (60" x 30' Grizzly) (FDR-2)

[From Receiving Hopper (H-2) to Crusher (CRS-2) and Conveyors

(CNV-01) and CNV-03)]

(Maximum Process Rate – 2000 tons/hour)

Constructed: 2006

Control: **Dust Suppression Sprays** 

(006)Primary Crusher #1 (Jaw - Nordberg C160) (CRS-2)

> (Maximum Rated Capacity – 2000 tons/hour) [From Feeder (FDR-2) to Conveyor (CNV-01)]

Constructed: 2006

Control: **Dust Suppression Sprays** 

(007)**Conveyor and Transfer Points #1 (CNV-1)** 

> [From Crusher (CRS-2) to Conveyor (CNV-5)] (Maximum Process Rate – 2000 tons/hour)

Constructed: 2006

**Dust Suppression Sprays** Control:

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Primary Plant: (Continued)** 

09 (008) Conveyor and Transfer Points #2 (CNV-2)

[From Feeder (FDR-1) & Crusher (CRS-1) to Conveyor (CNV-5)]

(Maximum Process Rate – 2000 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

#### **Secondary Plant:**

11 (015) Conveyor and Transfer Points #6 (CNV-6)

[From Stockpile (SP-2) via Underground Feeders (FDR-3), (FDR-4), and

(FDR-5) to Conveyor (CNV-7)]

(Maximum Process Rate – 3600 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(016) Conveyor and Transfer Points #7 (CNV-7)

[From Conveyor (CNV-6) to Conveyor (CNV-8)]

(Maximum Process Rate – 3600 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(017) Conveyor and Transfer Points #8 (CNV-8)

[From Conveyor (CNV-7) to Screen (SCR-2)] (Maximum Process Rate – 3600 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(018) Screen #2 (8' x 24' Triple-Deck) (SCR-2)

(Maximum Rated Capacity – 3600 tons/hour)

[From Conveyor (CNV-8) to Stockpile (SP-5), Stockpile (SP-7), Storage

Bin (BIN-1), Conveyor (CNV-9), and Screen (SCR-3)]

Constructed: 2006

Control: Dust Suppression Sprays

(019) Storage Bin #1 (Feeder Bin) (BIN-1)

[From Screen (SCR-2) to Crusher (CRS-3) via Feeder (FDR-6)]

(Maximum Process Rate – 1500 tons/hour)

Constructed: 2006

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Secondary Plant: (Continued)**

11 (021) Secondary Crusher #3 (Cone – Sandvik H-8800) (CRS-3)

(Maximum Rated Capacity – 1500 tons/hour) [From Storage Bin (BIN-1) to Conveyor (CNV-9)]

Constructed: 2006

Control: Dust Suppression Sprays

(022) Screen #3 (8' x 20' Four-Deck) (SCR-3)

(Maximum Rated Capacity – 750 tons/hour)

[From Screen (SCR-2) to Conveyors (CNV-9), (CNV-11), and (CNV-13)]

Constructed: 2006

Control: Dust Suppression Sprays

(023) Conveyor and Transfer Points #9 (CNV-9)

[From Crusher (CRS-3) and Screens (SCR-2) and (SCR-3) to Conveyor

(CNV-10)

(Maximum Process Rate – 2800 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(030) Conveyor and Transfer Points #13 (CNV-13)

[From Screen (SCR-3) to Conveyor (CNV-14)]

(Maximum Process Rate – 750 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

#### **Tertiary (Finishing) Plant:**

13 (035) Screen #4 (10' x 20' Triple-Deck) (SCR-4)

(Maximum Rated Capacity – 2100 tons/hour)

[From Conveyor (CNV-15) to Bins (BIN-16) and (BIN-17) and Conveyor

(CNV-16)]

Constructed: 2006

Control: Dust Suppression Sprays

(040) Conveyor and Transfer Points #16 (CNV-16)

 $[From\ Screen\ (SCR\text{-}4)\ to\ Conveyor\ (CNV\text{-}17)]$ 

(Maximum Process Rate – 1600 tons/hour)

Constructed: 2006

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Tertiary (Finishing) Plant: (Continued)**

13 (041) Conveyor and Transfer Points #17 (CNV-17)

[From Conveyor (CNV-16) to Conveyors (CNV-18) and (CNV-21)]

(Maximum Process Rate – 1600 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(043) Screen #5 (8' x 20' Triple-Deck) (SCR-5)

(Maximum Rated Capacity – 625 tons/hour)

[From Conveyor (CNV-18) to Bins (BIN-10), (BIN-11/12), and (BIN-18)]

Constructed: 2006

Control: Dust Suppression Sprays

(048) Screen #6 (8' x 20' Triple-Deck) (SCR-6)

(Maximum Rated Capacity – 625 tons/hour)

[From Conveyor (CNV-18) to Bins (BIN-10), (BIN-13/14), and (BIN-18)]

Constructed: 2006

Control: Dust Suppression Sprays

(055) Conveyor and Transfer Points #21 (CNV-21)

[From Conveyors (CNV-17), (CNV-20), and (CNV-24) to Conveyor

(CNV-22)

(Maximum Process Rate – 1700 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(056) Conveyor and Transfer Points #22 (CNV-22)

[From Conveyor (CNV-21) to Screens (SCR-7) and (SCR-8)]

(Maximum Process Rate – 1700 tons/hour)

Constructed: 2006

Control: Dust Suppression Sprays

(057) Screen #7 (8' x 24' Triple-Deck) (SCR-7)

(Maximum Rated Capacity – 850 tons/hour)

[From Conveyor (CNV-22) to Bins (BIN-4), (BIN-6/7), and (BIN-15)]

Constructed: 2006

Control: Dust Suppression Sprays

(064) Screen #8 (8' x 24' Triple-Deck) (SCR-8)

(Maximum Rated Capacity – 850 tons/hour)

[From Conveyor (CNV-22) to Bins (BIN-4), (BIN-5), and (BIN-8/9)]

Constructed: 2006

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **APPLICABLE REGULATIONS:**

State Regulation 401 KAR 60:670, Standards of performance for nonmetallic mineral processing plants (40 CFR 60, Subpart OOO as modified by Section 3 of 401 KAR 60:670), applies to each of the affected facilities listed above.

### 1. **Operating Limitations:**

N/A

### 2. <u>Emission Limitations</u>:

- a) Fugitive emissions from the two primary crushers, emission points 09 (003) and (006), the one secondary crusher, emission point 11 (021), and the four tertiary crushers, emission points 02 (039), (053), (063), and (069); shall not exhibit greater than fifteen percent (15%) opacity, each, as specified in State Regulation 401 KAR 60:670 [40 CFR 60.672(c)].
- b) Fugitive emissions from the eight screens, emission points 02 (077), 11 (018), (022), 13 (035), (043), (048), (057), and (064); the twenty-three conveyor and transfer points, emission points 02 (034), (051), (068), (070), (071), (072), (073), (074), (075), (076), 09 (002), (005), (007), (008), 11 (015), (016), (017), (023), (030), 13 (040), (041), (055), and (056); the twelve storage bins, emission points 02 (044), (045), (047), (049), (058), (060), (061), (065), (067), (078), (079), and 11 (019); shall not exhibit greater than ten percent (10%) opacity, each, as specified in State Regulation 401 KAR 60:670 [40 CFR 60.672 (b)].

#### **Compliance Demonstration Method:**

- a. In determining compliance with the opacity standards as listed above, the owner or operator shall use Method 9 and the procedures as described in 40 CFR 60.11 and 40 CFR 60.675(c), except for wet processes, which are exempt from Method 9, as specified in 40 CFR 60.675 (h)(1) and (2).
- b. See Section C, General Condition 6.a.

#### 3. Testing Requirements:

N/A

#### 4. Monitoring Requirements:

See Section C, General Condition 6.a.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 5. Recordkeeping Requirements:

See Section C, General Conditions 2.a., 2.b., and 6.a.

### 6. Reporting Requirements:

See Section C, General Conditions 3.a., 3.b., 3.c., and 6.b.

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#### **SECTION C - GENERAL CONDITIONS**

### 1. Administrative Requirements

a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

- b. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue, May 31, 2006. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]
- c. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- d. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Section 1a-4, 5, of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- e. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- f. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].
- g. This permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in 401 KAR 50:038, Air emissions fee. The permittee shall submit an annual emissions certification pursuant to 401 KAR 52:040, Section 20.
- h. All previously issued permits to this source at this location are hereby null and void.

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### **SECTION C - GENERAL CONDITIONS (CONTINUED)**

#### 2. Recordkeeping Requirements

a. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f) and Section 1b-IV-2 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].

b. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

### 3. Reporting Requirements

- a. (1) In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
  - (2) The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition a.(1) above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Section 1b-V-3 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].

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### **SECTION C - GENERAL CONDITIONS (CONTINUED)**

### 3. Reporting Requirements (Continued)

c. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. The summary reports are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

### 4. Inspections

In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:

- a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.
- b. To access and copy any records required by the permit.
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
- d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

### 5. Emergencies/Enforcement Provisions

- a. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - (1) An emergency occurred and the permittee can identify the cause of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

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### **SECTION C - GENERAL CONDITIONS (CONTINUED)**

### 5. <u>Emergencies/Enforcement Provisions</u> (Continued)

(4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

- c. Emergency provisions listed in General Condition 5.b are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
- d. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

#### 6. Compliance

- a. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
  - (1) Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.
  - (2) All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and nonroutine maintenance performed on each control device. Daily observations are required during daylight hours of all operations, control equipment and any visible emissions to determine whether conditions appear to be either normal or abnormal. If the operations, controls and/or emissions appear to be abnormal, the permittee must then comply with the requirements of Section C General Conditions, 3.a.(2), of this permit.
  - (3) A log of the monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division [401 KAR 50:055, Section 2].
- b. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
  - (1) Identification of the term or condition;
  - (2) Compliance status of each term or condition of the permit;
  - (3) Whether compliance was continuous or intermittent;

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### **SECTION C - GENERAL CONDITIONS (CONTINUED)**

### **6.** Compliance (Continued)

(4) The method used for determining the compliance status for the source, currently and over the reporting period, and

- (5) For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- (6) The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Paducah Regional Office 130 Eagle Nest Drive Paducah, KY 42003-9435 Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601-1403

c. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:

(1) Applicable requirements that are included and specifically identified in this permit; or

(2) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11].